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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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DEC 1 - 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

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Amendment of Part 2 of the
Commission's Rules to Allocate the
455-456 MHz and 459-460 MHz Bands
to the Mobile-Satellite Service

ET Docket No. 97-214

COMMENTS OF THE LAND MOBILE COMMUNICATIONS COUNCIL

The Land Mobile Communications Council ("LMCC") hereby responds to the FCC's *Notice of Proposed Rule Making* in the above referenced proceeding.¹ The LMCC believes that the FCC's proposed allocation of spectrum to the non-voice, non-geostationary mobile satellite services ("NVNG MSS" or "Little Leos") is premature given the lack of demonstrable need and the lack of technical sharing studies detailing the interference potential to the incumbent services.

I. Background

LMCC is a non-profit association of organizations representing virtually all users of land mobile radio and providers of land mobile services and equipment. LMCC acts on behalf of the vast majority of public safety, business, industrial, private, common carrier, and land transportation radio users, as well as a diversity of land mobile service providers and equipment manufacturers. LMCC's membership includes the following organizations:

¹ *In the Matter of Amendment of Part 2 of the Commission's Rules to Allocate the 455-456 MHz and 459-460 MHz bands to the Mobile-Satellite Service*, ET Docket No. 97-214, FCC 97-363, released October 14, 1997, *Notice of Proposed Rule Making [Notice or NPRM]*.

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- American Association of State Highway and Transportation Officials (AASHTO)
- American Automobile Association (AAA)
- American Mobile Telecommunications Association (AMTA)
- American Petroleum Institute (API)
- American Trucking Associations, Inc. (ATA)
- Association of American Railroads (AAR)
- Association of Public Safety Communications Officials-International, Inc. (APCO)
- Cellular Telecommunications Industry Association(CTIA)
- Central Station Alarm Association (CSAA)
- Forest Industries Telecommunications (FIT)
- Forestry-Conservation Communications Association(FCCA)
- Industrial Telecommunications Association (ITA)
- Intelligent Transportation Society of America (ITSA)
- International Association of Fire Chiefs (IAFC)
- International Association of Fish and Wildlife Agencies (IAFWA)
- International Municipal Signal Association (IMSA)
- International Taxicab and Livery Association (ITLA)
- Manufacturers Radio Frequency Advisory Committee(MRFAC)
- National Association of State Foresters (NASF)
- Personal Communications Industry Association (PCIA)
- Telecommunications Industry Association (TIA)
- UTC, The Telecommunications Association (UTC)

LMCC's interest in this proceeding is derived from the FCC's proposals to allow the Little Leos shared access to bands used primarily for terrestrial mobile services. Specifically, the FCC has proposed to implement decisions made at the 1995 World Radiocommunications Conference (WRC-95) to allocate 455-456 MHz and 459-460 MHz on a co-primary basis to the NVNG MSS in ITU Region 2. Domestically, these bands are used by a diverse number of terrestrial mobile services such as one-way paging operations, two-way mobile telephone service, air-to-ground mobile telephone service, point-to-point microwave stations and broadcast remote pickup stations used for both on-air program material and telemetry operations.² Despite the fact that the FCC has proposed that Little Leos services must not

² The 455-456 MHz band is paired with the 450-451 MHz band and is available under Part 74 of the Commission's Rules for broadcast remote pickup services. The 459-460 MHz band is paired with the

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create interference to mobile services, and must accept any interference received, the LMCC believes that it is premature to implement additional NVNG MSS allocations.

II. Comments of LMCC

A. Need For Allocation

The *NPRM* argues that the proposed allocation for NVNG MSS is justified because “there has been a growing demand for spectrum for this service.”³ In support of this view, the *NPRM* cites the 1995 FCC Industry Advisory Committee Final Report which indicates that studies prepared by Little Leo advocates estimate that the “capturable” Little Leo market in North America will exceed 40 million users by the year 2000.⁴ Based on such data, the FCC tentatively concludes that additional spectrum for NVNG MSS is needed to “facilitate the competitive development” of the Little Leo service.⁵

The LMCC disputes that there is sufficient documentation supporting additional NVNG MSS spectrum allocations below 1 GHz. Typically, an existing service is required to demonstrate that its existing allocations are fully utilized before receiving additional spectrum. The *NPRM* fails to cite to any operational or technical data that shows that the existing Little Leo allocations are congested or inadequate to support any realistic application.⁶ Rather, the

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454-455 MHz band and is available under Part 22 for common carrier mobile services.

³ *NPRM* at ¶6.

⁴ *Id.* at ¶7.

⁵ *Id.*

⁶ The Little Leo service is intended to offer narrowband, short burst data transmissions in a store and

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FCC appears to be basing its tentative conclusion that additional spectrum is needed on two factors: 1) market demand studies prepared by Little Leo advocates and 2) the number of domestic applicants seeking licenses to offer NVNG MSS service. In each of these cases, the evidence suggests that additional allocations may be premature.

First, during the US preparations for the WRC-97, some LMCC members identified inconsistencies with the market demand studies promoted by Little Leo advocates. In Section 2.1 of the Final Report of the Informal Working Group 2A, a demand study submitted by the Little Leo supporters is summarized to show a projected addressable market for NVNG MSS in North America at approximately 18.7 million users for the period 1996-2002. Nearly 80 percent of this total, 14.8 million, is attributed to automated meter reading by utility companies. In response, LMCC member UTC -- the national representative on communications matters for the nation's electric, gas, and water utilities, and natural gas pipelines -- noted that few, if any, of its members have expressed any interest in utilizing Little Leos for that application.⁷ While demand studies for fledgling industries are necessarily speculative, the FCC should consider the statements of the utility industry as it determines the spectrum requirements for the Little Leo service.⁸

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forward mode. The spectrum requirements for such systems should be far less than those offering real time voice communications, for example.

⁷ See *Comments of UTC on Non-Consensus Recommendations and Responses*, Reference No. ISP-96-005, submitted June 16, 1997.

⁸ LMCC reminds the FCC that the communications services most often cited by the Little Leo proponents -- meter reading, remote asset tracking, vehicle messaging, personal messaging and SCADA -- are most frequently associated with private land mobile users who have been leading opponents to further shared allocations for NVNG MSS. Given that the Little Leos' spectrum requests are continually opposed by their projected customers, it is hard to imagine that the service can achieve

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Second, in contrast to the demand cited by the *NPRM*, the number of parties that seek to provide Little Leo service is dwindling. Recently, one of the first round US licensees for Little Leo service returned its license to the FCC without taking any of the necessary steps to complete construction.⁹ While the licensee attributed its failure to its inability to attract foreign partners, one of its business managers warned the rest of the Little Leo industry that "there is not enough room in the market for everybody."¹⁰ This view is reflected in the consolidation of other Little Leo applicants and companies.¹¹

This industry consolidation allowed the FCC to recently complete its second round licensing provisions for Little Leo services by finding sufficient spectrum within the existing allocations to authorize three new service providers and provide additional spectrum for two existing licensees.¹² Rather than responding to speculative market demand studies with additional allocations, the FCC now has the luxury of time to monitor further developments among the Little Leo proponents to determine which parties are serious about launching services and whether additional consolidation will ensue.¹³ Since there is no evidence that the

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their projected market of 40 million North American units by 2002.

⁹ See *In the Matter of Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Services*, IB Docket No. 96-220, FCC 97-370, released October 15, 1997, *Report and Order [hereinafter Second Round R&O]* at ¶10 [discussing the actions of Little Leo licensee GE-Starsys].

¹⁰ *LEOs, GEOs and MEOs: Will They All Fly?*, published in *Via Satellite*, October 1, 1997.

¹¹ See *Second Round R&O* at ¶10 [discussing the relationship between Orbital Sciences Corporation, parent of Little Leo licensee Orbcomm, and Little Leo applicant CTA Inc.].

¹² *Id.* at ¶2.

¹³ At the recently concluded WRC-97, other administrations indicated that they believe that further
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current allocations are impeding any ongoing operations, additional allocations are now premature.

B. Spectrum Sharing

The *NPRM* seeks comment on the feasibility of spectrum sharing between Little Leo transmissions and terrestrial broadcast remote pickup operations in the 455-456 MHz band and common carrier paging, two-way mobile telephony, and rural radiotelephony in the 459-460 MHz band.¹⁴ In addition, the FCC seeks comment on whether certain portions of these bands should not be allocated for Little Leos such as the 459.025-459.65 MHz segment which is slated to be auctioned to Part 22 licensees.¹⁵

As indicated in the previous section, the LMCC believes that there is insufficient data supporting the need for additional spectrum allocations for NVNG MSS. More importantly, the LMCC believes that there is insufficient technical studies supporting a shared co-primary allocation between the Little Leo service and the terrestrial land mobile services now occupying the 455-456 MHz and 459-460 MHz band. To the best of LMCC's collective knowledge, there is no study which examines frequency sharing between Little Leo uplink

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consolidation among the Little Leo proponents is likely. While calling for the NVNG MSS community to complete further sharing studies with incumbent spectrum users before any additional allocations can be made, newly modified Resolution 214 points out that while there is not enough spectrum currently allocated to allow development of all proposed systems, "a number of these systems may not be implemented for reasons not connected with spectrum availability."

¹⁴ *NPRM* at ¶¶12, 13.

¹⁵ *Id.* at ¶13.

devices and broadcast remote pickup stations, or one-way paging transmitters and receivers, or two-way mobile telephone services, or air-to-ground mobile telephony systems.¹⁶

The need for technical studies is not eliminated simply by imposing the international requirements that Little Leos shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services nor constrain the development and use of the fixed and mobile services. While these provisions should certainly apply to any NVNG MSS allocation shared with the fixed and mobile services, the LMCC believes that the FCC should not rely solely on these protections when adopting shared allocations.¹⁷ Without adequate technical sharing studies detailing the likelihood of interference, the FCC may permit a shared use allocation that results in harmful interference to the land mobile incumbents without any means of remedying the situation. The FCC must consider viable exit strategies for interfering satellite services and must establish provisions that simplifies the reporting of interference events by the incumbents.

¹⁶ Previous studies have focused on NVNG MSS sharing with analog land mobile simplex radios at 148 MHz. The NVNG MSS community has attempted to extrapolate these results into other frequency bands inhabited by different types of land mobile systems. As reflected in ITU Resolution 214 and previous LMCC reports, further specific studies are needed that focus more specifically on the wide variety of land mobile products. This is particularly true for the two frequency bands at issue which serve diverse and unique communications needs far different than that studied at 148 MHz.

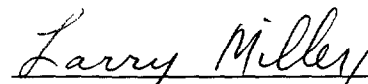
¹⁷ While the FCC proposes to adopt the provisions of international footnotes S5.286A, B and C, it fails to propose to adopt footnote US323 which limits Little Leo transmission duration and duty cycle. In discussing the shared use of the broadcast remote pickup spectrum, the FCC notes that the limited duration of Little Leo transmissions reduces interference potential to the incumbent services. *NPRM* at ¶12. Since restricting Little Leo message duration and duty cycle reduces interference potential, US 323 should apply to any frequency band shared by Little Leos and the mobile services.

Finally, LMCC opposes any further FCC consideration of providing Little Leos shared access to spectrum to be auctioned to competing services.¹⁸ The FCC intends to auction the 459.025-459.65 MHz band, which is used primarily for one-way paging operations, under Part 22 provisions. While LMCC takes no position on the appropriateness of that action, it is unconscionable for the FCC to charge one class of users for access to the spectrum while allowing a direct competitor free access to the same spectrum. Such an action would be arbitrary and capricious.

III. Conclusion

The LMCC therefore recommends that the FCC proceed cautiously in moving to implement the decisions of WRC-95. There is no compelling evidence that the Little Leo industry is operationally harmed by the amount of its existing spectrum allocation and too little technical analysis has been conducted to adequately assess the interference potential to existing common carrier paging and mobile telephone operations as well as broadcast auxiliary uses.

Respectfully submitted,


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December 1, 1997

¹⁸ Likewise, the LMCC urges the FCC to avoid any shared use of 459.000 MHz given the critical nature of the communications on that frequency for oil spill containment and cleanup operations.